OTTAWA HOME COMPUTING

Oct. 21, 1985

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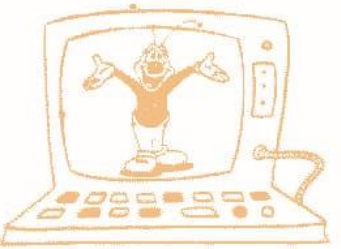
$1.60

EDUCATIONAL



SOFTWARE

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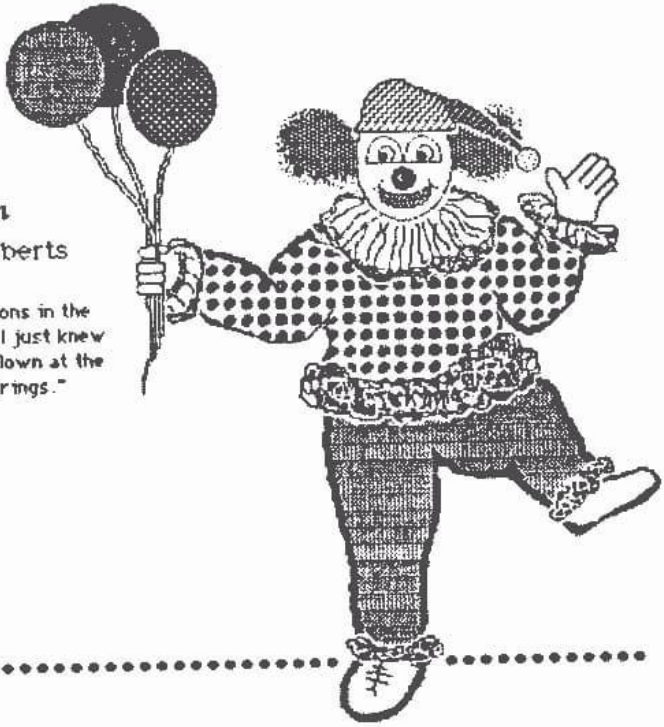

Funny Clown

by Karen McRoberts
Evansville, IN

"When I saw the balloons in the MacPaint™ manual, I just knew they had to have a clown at the other end of their strings."

RENEWAL TIME

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OTTAWA HOME COMPUTING is the newsletter of the Ottawa Home Computing Club. Membership is open to all with a genuine interest in personal computing for $15/year in Canada. Membership includes OTTAWA HOME COMPUTING, which is published 10 times a year. Meetings are usually held on the third Monday of each month, 7:30 p.m., at Charlebois High School, corner of Heron Road and Alta Vista Drive in Ottawa.

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EDITORIAL

by Bob Mason

This column's usual pleas for help have been scattered through the issue -- watch out for them, they sneak up on you when you're not looking.

Thanks to Barry Silmser for his help in getting us the O.B.E. material. And to the usual crew of contributors.

I had several things to say here, but can't remember any of them (Yea!). Unfortunately I promised people I would say them (Boo!). Next issue, guys.

I had a qualifying note with the copy protection article on page 10, but the note wouldn't fit, so here it is:

This article is part of a continuing debate on the subject of copy protection. Articles published as part of that debate represent the views of the author, and are not necessarily the views of the Ottawa Home Computing Club or its executive.

If you would like to contribute your thoughts on the topic to this debate, please send your submission to either the club or the editor.

AGENDA
October 21 Meeting

7:30 Disk of the Month
Membership Sales
Socialization

8:00 Business Meeting

8:20 Presentation:
EDUCATIONAL SOFTWARE

9:00 Special Interest Groups

Group	Room
Apple & Mac	Lecture Hall or Room 213

Browse through the library, order disks, discuss applications, problems, etc.

Commodore and Disk of the Month	Room 219

Same as above, but for Commodore. If Paul Anderson doesn't have the answer for you, he'll direct you to someone who does.

COMAL	Room 221

Comal is a programming language similar to BASIC, but much faster, more powerful, and easier to use. Find out about it.

Forth	Room 230

Forth language is shorter and faster than BASIC. '(20to 600 times faster). Used with robots, sensors, and many appliances. Much more

Newsletter	Room 210

The Newsletter editor and/or members of the Newsletter committee will be available for discussion, suggestions, submissions, whatever.

SPECIAL INTEREST GROUPS

The following are Special Interest Groups (SIGs) which meet monthly and determine their own format. If you're interested in developing further in one of these, fields, drop in. You're sure to find someone who shares your interest.

Computer Graphics	Room 223
Beginning Computerists	Rm 224
Telecommunications	Room 212
Data Base Users	Room 227
Machine Language	Room 215
Music	Room 225

More details and possible room changes will be indicated at the meeting. The meeting on November 18 will focus on Computer Graphics. Don White will be demonstrating the "Computereyes" package which takes output from a video source and processes it for use on Commodore or Apple computers. Also, Don is hoping to have a Commodore film on the new Amiga. More details at the October meeting, and in the November newsletter, which should be in your hands before the meeting.

MINUTES -- SEPTEMBER MEETING
by Bob Mason

The meeting was held on Monday September 16, at Charlebois High School. Paul Irwin again reminded members about the "Touch Tone Phone" problem (see "Announcement" in last month's newsletter). Wayne Schaler made several announcements regarding future programmes.

The theme of the night was Telecommunications. Unfortunately the Bell phone line (which was ordered well in advance of the meeting) had

continued on page 13

KINDERCOMP
FACEMAKER
ALF IN THE COLOR CAVES
a review by Jim Sutton

As the father of a preschooler, one of my interests after purchasing my Comodore 64 was sifting through the rather large body of programs designed for young children. There has been much written about the future of computers in education; however, many of those programs didn't strike me as anything which might catch the imagination of an active young child. SPINNAKER Software Corp has an excellent remedy for the computer blahs in its Early Learning Series.

KINDERCOMP consists of six programs. Once the cartridge is in place, a title screen comes up with a catchy little tune and an animated sailboat. Program 1 is called DRAW. It allows you to make drawings using the joystick. This program makes very good use of the C-64's color; it also very good in helping a child learn about direction and controling a joystick.

Program 2 is called SCRIBBLE. Touch a key and the character is repeated accross the screen to the sound of a scale. This program is an excellent aid in learning letter recognition. Also worth mentioning is the delight which can register on a small face when cause and effect become clear.

Program 3 is called NAMES. Here, you can enter a name or a small message; when return is struck your characters scroll up the screen, changing colors as they go. Music is again an integral part of the game.

Program 4 is SEQUENCE. Several numbers are presented in a row; your task is to fill in the last one. When one is successfully completed, another sequence is presented. After several successful attempts, a short reward of animation and music is presented.

Program 5 is LETTERS. A letter appears on the screen; the task is to match that letter. Again, a short reward is given after several successful turns.

Program 6 is called MATCH. In this, a pattern of shapes appears in a box and three possible matching patterns are presented below. Pattern recognition as well as an understanding of the labeling of the pattern groups is enhanced.

FACEMAKER presents another element of the computer to your child. In this program, a face is presented with choices to make about a nose, mouth, eyes, ears, and hair. When a face is complete, animation is available in the form of a wink, a frown, a smile and so on. There is also a memory game in which the computer winks or wiggles and the task is to identify this action.

ALF IN THE COLOR CAVES is in many ways the most simple of the programs presented here and perhaps the one to invoke the most delight. ALF is an animated character who must journey through a maze to reach his destination. Along the way he goes through colorful zig-zag and squiggly tunnels while avoiding the mysterious Wufflegumps who are trying to block his path. Joystick skills are developed quickly and a successful journey is rewarded with a great little dance to truly original music.

EDUCATIONAL SOFTWARE

recommended by the O.B.E.

The following is a partial list of the "Catalogue of Recommended Educational Software" put out by the Ottawa Board of Education. The catalogue contains only software that has been tested by educators in a classroom situation. It is not an exhaustive list -- it has been made available to teachers to indicate <u>some</u> software that has been tried and tested. Parents who are interested in seeing the full listing can contact the "computer contact teacher" at their child's school.

The Ottawa Board uses Commodore computers almost exclusively, while the Carleton Board has mainly Apple products. While most of the software on this list is available for either computer, parents may wish to contact the Board which has their computer.

SUBJECT CODES

AD-Administration
AE-Adult Education
AG-Agriculture
AR-Art & Computer Graphics
BE-Business Education
BI-Biology
CA-Computer Awareness
CE-Co-op Education
CH-Chemistry
CL-Classics
CS-Computer Science
DA-Drama
DR-Drafting
EC-Economics
EL-English as Second Language
EN-English
ES-Environmental Studies
FR-French
FS-Family Studies
GE-Geography
GU-Guidance
HE-Health
HI-History
IA-Industrial Arts
LA-Language (English)
LI-Library Science
LO-Logic & Problem Solving
MA-Mathematics
MO-Moderns
MU-Music Appreciation & Composition
OC-Occupations
OE-Outdoor Education
PE-Physical Education
PH-Physics
RD-Reading
SC-Science
SE-Special Education
SS-Social Studies
TS-Technical Studies

DIVISION CODES

K-Kindergarten
P-Primary (grades 1-3)
J-Junior (4-6)
I-Intermediate (7-10)
S-Senior (11-13)
T-Teacher/Educational admin.

TYPE CODE

D-Drill & Practice
I-Informational
P-Problem solving
T-Tutorial
G-Educational Game
M-Instructional management
S-Simulation
U-Utility

Program	Subject	Topic	Div.	Type	Manufctr.

ALPHABET ZOO LA Varied KF G Spinnaker
Three games that use animal pictures to reinforce initial consonants and spellings.

ANIMALS OF ONTARIO SC Animals PJ P Pub.Domain
A classifying game that requires student to recognize each animal by its specific characteristics.

BIG BIRD'S SPEC. DEL. LA Varied KP D CBS
Big Bird's little helper has to deliver packages to the correct location. Student has to match and classify packages.

BRAIN CRANE (Series) MA Num.Fcts.P D Pub.Domain
Addition, subtraction, multiplication and division facts are drilled in these four games. Amusing graphics.

CROSSWORD LA Vocab. PJIST U Pub.Domain
Teacher or student enters words and clues. Program then makes a crossword puzzle that is visible on screen. Dumps to Commodore 1526 printer.

DELTA DRAWING AR Varied PJI P Spinnaker
Students can quickly make drawings of pictures, as well as geometric figures. Similar to LOGO, but easier to program. Non-readers could use.

DEVINETTE 1-10 MA Nom.seq. P D Dom.public
Trouver le nombre qui manque dans une liste montree a l'ecran.

DEVINETTE-ALPHA LA Alph.seq. P D Dom.public
Trouver la lettre qui manque dans une liste montree a l'ecran.

DUCKS AHOY CA Varied K G CBS
Student uses joystick to guide boat through canals. Object is to rescue small ducks. Student must predict order in which ducks need rescuing.

DYNAMATH MA Sprdsht JI P Copp Clark
Series of programs. Students use simplified spreadsheets to apply mathematics to real life. Teaches about spreadsheets as well as math.

EARLY GAMES FOR YOUNG CHILDREN Varied Varied K D Counterpnt.
Nine programs reinforce matching, counting, adding, subtracting and alphabet skills. Non-verbal menu makes selection easy for pre-readers.

EARLY GAMES FRACTION FACTORY MA FractionsPJ D Counterpnt.
Five programs that reinforce addition, subtraction and equivalent fractions, fractions of a number, and of sets.

Program	Subject	Topic	Div.	Type	Manufctr.

EDUKAT MATH (Series) MA Varied JI TD Commodore
Eight programs purchased separately. Titles are Addition, Subtraction, Multiplication, Division, Decimals 1, Decimals 2, Geometry, Graphing.

FACEMAKER LO Readiness K P Spinnaker
Student makes various faces using face parts supplied by the program. Completed face can be partly animated and a memory game can be played.

FACTORY, THE LO Prob.Sol.JIS SP Sunburst
Student designs a factory to make a product. Partner must design new factory to produce identical product. Multilevel. Individual/group use.

FAITES LA PAIRE LA Ident.mot KP D Dom.public
L'eleve doit retrouver le mot inscrit au haut de l'ecran dans l'une des deux colonnes et peser 1 ou 2 selon ce qui convient.

FAY: THAT MATH WOMAN MA Computat.KPJ D Didatech
A math drill game for addition, subtraction, multiplication and division. Variable levels of difficulty.

FAY: THE WORD HUNTER LA Spelling J G Didatech
Program makes word search for student to solve. Arcade game follows as reward for completing search. Teacher can input own words.

FOOD NUTRIENT CONTENT TALLY FA Nutrients IS M Pub.Domain
Student calculates the nutrient value of a given food plan, and then evaluates results. Database of foods high and low in specific nutrients.

GERTRUDES'S SECRETS LO Prob.Sol.PJI P Learning Company
A series of games that reinforce logical thinking using shape and colour relationships.

INCREDIBLE LABORATORY LO Prob.Sol.JI P Sunburst
Students identify various chemicals and their effects while creating a creature. Various levels of difficulty.

This is only the first part of the list. There are sixty-five more entries, and if you're interested in the full list, talk to the Computer Contact teacher at your child's school.

The Board also distributes evaluation forms so that they can get feedback from teachers, parents and the general public on educational software. These forms are then filed, and can be used by a teacher to aid in choosing software for the classroom.

TEACHING YOUR CHILD TO READ WITH A MACINTOSH

by C.J. Pavlin, M.D.

The following article is reprinted from Maple Orchard, Vol. 4, No. 2.

* * * * *

One fascinating thing about the Macintosh and especially the MacPaint program is the ease with which young children learn to use it. There are few programs on conventional computers that can be used by a young child before he learns to read. Most graphics programs require reading ability and familiarity with a number of control commands to use effectively. The Macintosh with its mouse and visual interface allows natural, almost intuitive use of its graphics tools. I found my five year old was creating rather complex works of art within 5 minutes of being introduced to MacPaint. Unfortunately, the world is not composed of Macintosh interfaces and I'm sure there will come a time in his life when reading might come in handy.

I have found the MacPaint program to be an excellent tool for teaching a child reading skills. This is of course used along with the conventional techniques of encouragement, coercion and bribery. Books, reading cards, etc. tend to be rather static and dull. Using the MacPaint program can make a reading lesson come alive.

First there are the various fonts and styles. A word in 24 point San Francisco is just more interesting than the same word in standard type. You can then manipulate the words to your heart's content using the framing function. For instance, take that grand old standard 'c a t'. After sprinkling consonants around the screen such a H, F, R, etc. one can frame the 'a t' and place it in front of each of these letters with the mouse, creating Hat, Fat, Rat, etc., the standard technique for illustrating phonetic relationships. Similarly, words can be shuffled around and duplicated to produce more complex words, simple sentences, etc.

Using the command key with the frame, one can manipulate a word by stretching it or shrinking it to illustrate it's meaning. Thus the word fat can be made fat, thin made thin, tall made tall, and small made small. Anything can be made to flash by framing it, clearing it, pressing the "™" key (undo) and holding it for repeat undos.

Illustrating a word or concept with a drawing is rapidly and easily accomplished using the pencil or other MacPaint graphic tools. Not only can you illustrate it, but you can quickly animate your drawing by lassoing it and whipping around using the mouse. Thus the rabbit can hop, the car drive around the screen, and the bird fly. Another example of instant animation is drawing a window and then using a filled rectangle to create a window blind that can be rolled up and down at will. These and other techniques sustain interest and provide positive reinforcement.

The speed with which you can produce these changes allows the lesson to flow naturally without interruption. It's like "Sesame Street", and you are the Big Muppet. After a month the only problem I have found with this technique is trying to get my copy of *War and Peace* away from my kid.

SOME MORE THOUGHTS ON COPY PROTECTION

by Bob Mason

The issues of "Copy Protection" and "Software Piracy" are ones that especially face the home computerist. And while I have little experience in the field of business software, I would guess that protection is not as much of an issue there for the following reasons:

-- Software acquisition is often tied in with the purchase of a computer system, and included in the package. Often, to make the sale, the dealer will charge the buyer the wholesale price (60%) or less.

-- Software acquisition is a depreciable capital expense, and is tax deductible, thus lowering the real purchase price even further.

-- Since business software is often complex, dealer installation, customer training, trial periods and elaborate demonstrations are often used to make the sale. (Say, could I take "Pirates of Zapp" home for a week and try it out -- I'm not sure it's what I really want.)

So, while I often marvel at the prices charged for some of the integrated software packages aimed at business, when all the testing and deductions are taken into account, the price isn't so outrageous. Without these benefits, business users would probably be a much more influential force in the areas of software pricing and copy protection. But as it is, home computerists will have to be the main force in this battle.

MANUFACTURER'S ARGUMENTS

One must be careful when comparing computer software to other copyright-protected media. In none of the other areas (books, recorded music, or video-taped material) is there the bewildering array of playback hardware ***each requiring a special format***. This adds not only to production but more significantly to distribution costs. Imagine the price of a record if a different version had to be produced for each make and model of turntable.

As well, these other media producers already have well-established profit-making industries to promote their products (bookstores, radio stations, movie theatres). Compare that to ... Video arcades! Games night at the computer club!

A third point is that there does not exist in these other areas (to any significant extent) the equivalent of a computer club or an upload-download bulletin board, both of which could easily facilitate the swapping of software.

These are only some of the arguments used by software producers when they defend the use of copy protection to control "software piracy". I'll refer to them again under "Possible solutions".

THE PAINS OF COPY PROTECTION

Copy protection schemes now in use leave the purchaser with a feeling of helpless frustration, asking 'what do I own when I buy this'. Some of these frustrations come from:

-- inability to make a back-up copy (some producers will provide a copy, or replace a defective disk, for a price)

-- inability to list and modify software to suit your individual needs (I have one particular game where the character colour does not come

up well on my cheapo TV set. What should be a simple fix becomes either a headache or an impossibility.)

-- copy protection schemes which use error tracks usually cause premature misalignment of the read head, thus spawning a whole new industry to handle disk drive repairs

-- copy protected disks cost more. The producer must keep developing new protection methods as old ones are broken. The most obvious example of this vicious spiral is the 'copy program' which is itself copy-protected.

POSSIBLE SOLUTIONS

The reason for copy protection is to stop illegal copying of disks. But the main reason for illegal copying is the unrealistically high price of software (especially considering what you get -- see "pains"). And that software costs even more if I add on a portion of the cost of a copy programme so that I can make aback-up copy. Heck, I'm not going into the software marketing business; I know it's illegal, I feel it's immoral, and I've better things to do with my time.

But the attitude of producers makes me mad: rather than having a feeling of trust or respect for these people, my attitude is 'fight fire with fire'. If their attitude was one of trusting the honesty of the individual, I'm sure most people would respond in kind. It'll be interesting to see the results of such experiments as 'HomePak', the word processor-terminal-data base programme from Batteries Included that sells for relatively low price of $49.95 and is not copy-protected. If you want this programme, buy it! You'll be telling someone that low-priced, unprotected software will sell.

Another solution is the concept of freeware -- software is made available at no charge, but with a message that if the software is used, a specified amount be sent to the producer. This method would definitely work better if all producers fostered that attitude of trust I talked about. At one point I thought of sending $10 to a software producer whose software I had illegally copied. But they'd probably trace my cheque, get the info from my bank, and arrest me. (It's their attitude again).

Perhaps, rather than taking the club presidents and bulletin board sysops to task for contributing to piracy, the producers should be using these facilities for promotion and distribution of software. They could make a stripped-down version (with instructions on disk and no fancy packaging) available to clubs for copying and selling to members. The club would get a small profit, and at, say $10-15 a game, sales would surely boom. And it'd be easier to police a thousand clubs than 100,000 users.

Then there's the rental facilities. Why not admit that their existence is primarily to make software available for copying. Supply them with the programmes, replaced as needed, and have them collect a royalty from each rental.

Sure there's kinks to be ironed out, but there are alternatives. To say that these wouldn't work is easy -- they're untried. But copy protection isn't working, and it has been tried.

==========

C64 Game Design

DESIGNING EARWIG PINBALL
Part II

Twelfth of a series
by John Batchelor

Since last time, I completed Earwig Pinball and you should find it on the Disk of the Month at the October meeting. The game is amusing but no prize-winner. Last month, we had come up with the initial concept and designed the sprites.

I put the sprites on the screen to get an idea of their possible interaction. By limiting them to the left side of the screen (positions 32 to 255), programming is simplified although the size of the garden shrinks. This provides a place to park them. That is, the right side, while they are being placed. The top line is reserved for messages. The garden border is just a series of reversed spaces poked to screen and colour memory.

Looking at that display told me how to program the motion of the sprites. Each would appear in turn at the top centre of the garden. The joystick would move them around and the button would place them in the desired spot. Sprites shouldn't touch the border (just do a range check) or each other (check sprite collision register). If the checks fail, send the sprite back to the top for another try. I also reserved the top of the garden for the random entry of the earwig so a range check won't let the button place a sprite up there either.

Once all plants and traps are in place, the bug appears and moves diagonally until it encounters a wall. Then it reverses the x or y component of its motion. If it hits another sprite a sound effect is generated and the number of eggs (lives) is incremented or decremented as appropriate. The affected sprite is temporarily erased until either three plants or four traps are struck. Then the garden is restocked in the same position and the next earwig attack is started. Of course, if the number of eggs falls below zero, the game is over.

For sound effects, I used 'Waveform 23' from September '85 *GAZETTE*. I made it zing three times not four and provided for random selection of waveforms. I added instructions and an ending/replay routine. The game also needed loaders for the sprites and good file names in accordance with club conventions. That's about it. Study the listings if you are interested and ask me questions. I put in a lot more REMs than I usually do. As I said, not a thriller but a good example of what 120 lines of BASIC can do. It took me about ten hours spaced over three weeks to get this one going.

Some other comments. The game is a bit too slow in BASIC despite some optimizing. I used the ASTRO-COMPILER to speed it up by about three times. It even sounds better now but since you can't list or modify a compiled program, both versions are submitted. I also had trouble with crashes when by FASTLOAD cartridge is operating so I've guarded against that on the way in and out of the program. I intend to convert the whole thing to COMAL too so that the current mess of GOTOs and patches gets some true structure.

UPCOMING MEETINGS

In the following list, the dates of meetings is firm but the topics are not.

Oct. 21 **Educational**

Nov. 18 **Computer graphics**
See the note in "Agenda" for further details on this meeting.

Dec. 16 **Computers in the home**
Hardware and software that can control electrical outlets and appliances, monitor energy use and security devices. Even makes coffee!

Jan. 20, 1986 **Word Processing**
Some word processing packages will be discussed in the meeting, and demonstrators will show these, and other packages in the classrooms afterwards.

Feb. 17 **Spreadsheets**
Same as word processing (above) but covering Spreadsheet software. Both evenings may involve the demonstration of integrated packages which include both, and other, facilities.

The meetings that involve Word Processing, Spreadsheet, and another Games Night (demonstration of Games Software) are dependent on volunteers. We need people to present the software to the meeting, people to demonstrate the software in the classrooms (bring your own equipment), and people to help with the organization of the volunteers (phoning the volunteers, helping with equipment. If you're able to help, please notify Wayne Schaler. Without your help, these nights won't happen.

There will be a Games Questionnaire distributed at the next meeting (if I get it together). You can indicate your willingness to help with these demonstrations on that questionnaire.

If I'm giving Wayne all these plugs, I might as well put in one for the Newsletter -- we need submissions. Each issue has a theme, usually corresponding to the meeting theme. These are indicated above. Each issue also contains several 'miscellaneous' articles. If you want direction, pick something connected to the theme. If you want freedom, pick anything connected with computing. We've tried to stimulate discussion with our articles on 'Software Piracy'. This month we're starting a 'Questions and Answers' column. We need YOUR input in all these areas; otherwise, we on the committee are just writing to ourselves.

SEPTEMBER MINUTES

(continued from page 4)

not been installed, but both Don MacMillan and Corey Marks fiCIled in admirably. Don demonstrated the Commodore modem (1660 I think) and talked generally about telecommunications. Corey had a very sophisticated terminal package for the Apple, and was able to use the software to simulate a call to his own bulletin board (CCRACKERS! -- 820-3171) to run through the commands on the board.

Special Interest Groups met at about 9:15. Attendance at some was good, others poor. If your group is struggling because of a lack of interest, or if you have a suggestion for another special interest group, please talk to the Education Director (Wayne Schaler) or the Newsletter Editor (Bob Mason) -- we'll see what we can do.

Q ??? & A !!!

Questions and Answers strives to answer questions you might have about computing. Questions can be sent to the club or directly to the editor--both addresses are on page 3.

How about a technical instruction evening on the 1541 Disk Drive, C64 Computer, and 1525 Printer.

A very good suggestion. We've had several questions regarding 1541 alignment and about hardware in general. The only roadblock is finding someone qualified to give the instruction. To any technical people out there -- please contact Wayne Schaler -- we'd really appreciate your help.

About the newsletter and articles: would it be easier (for those having a word processing program) to hand you a disk of an article, all formatted, etc. rather than 8x11 pages? If so, what format do you want? Or those able could hand over both disk and pages.

Why didn't I think of that? Yes, yes, yes, that would be easier. Sometimes there are problems switching from one word processor to another, so a printed copy might be useful too, if possible. I'll return the disk at the next meeting.

Disks prepared on a 64 should be no problem. VICs, Apples and Macs may present a problem, though we do have access to some of these -- better check first.

As to the printing format: 10 pitch type; line spacing of 6 lines per inch; line length of 3 inches (30 characters in 10 pitch). Justified text is preferred. Avoid use of italic if it's as weak as it is on my Gemini. Don't use a weak ribbon. Heading styles and paragraph indents are totally arbitrary.

Actually formatting isn't crucial. It's easy work for us to put in the format codes and justify the text.

Thanks for the suggestion! I'll be in room 212 after the main meeting to receive articles AND disks.

RATS! I ran out of space when I was just getting going. Next month -- reset button for the 64, questions about the club BBS, and more!

C-64 DISK OF THE MONTH

The C-64 Disk of the Month is carried at the stores listed below. It sells for $4.50 and is available two days after each meeting.

A FLORIST & COMPUTERS	1152 Ogilvie Road	744-0220
COMPUCENTRE	Carlingwood Mall	729-0448
	Rideau Centre	230-3672
MEDIA LAND (G-Plus)	130 Albert Street	230-7750
	301 Moodie Drive	820-7326
MGI COMPUTER CORP.	1501 Carling Avenue	722-1000
MR DISKETTE	119 O'Connor Street	232-5203
ZAP & ZOOM	435 Kent Street	232-4400

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SPECIAL RATE FOR Ottawa 6502 members!!!

Contact Don White for details.

* * * * * * * * * * * * *

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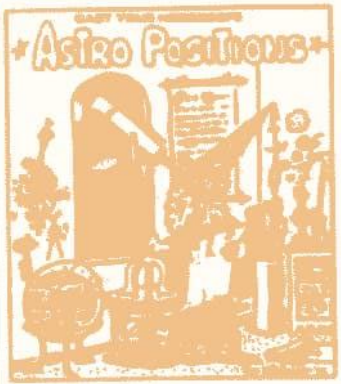

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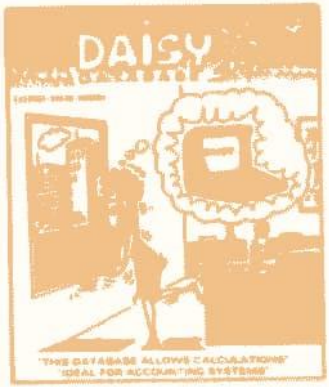

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